EPSON AMERICA, INC.

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# Product Support Bulletin

**SUBJECT:** MS Windows 3.x Stylus 400/800+/Color Printer Driver problems using the ActionPC/Tower-2000 Computers

Date: 11/5/94 PSB No: PSB S-0179
Page(s): 1 of 1 Originator: DS

This bulletin provides procedures to implement a software solution to address printing problems using the printer driver ver 1.03E for the Stylus 400, 800+ and Color printers when connected to an Epson ActionPC-2000 and ActionTower- computers in the MS Windows 3.x environment.

*Some ActionPC/Tower-2000 computers, with the black **EPSON logo plate,** have a problem using the 1.03E version driver. The software solution is as follows:

1. From Windows **MAIN** program group, open **FILE MANAGER.** Within File Manager, change to the **SYSTEM** sub-directory located in the Windows directory. Find the tile **EPSPLMGR.EXE** and double click on that tile to run/load it. This will open the **EPSON SPOOL MANAGER.**

2. From the **SPOOL MANAGER** screen, select the **QUEUE** "pull down" menu, then select **SETUP.**

3. From the **SETUP** screen, enable the **PRINT MANAGER** by clicking on that option.

4. Close the Spool Manager and exit File Manager.

5. Print a document and verify the solution is working correctly.

If this is not satisfactory, contact your nearest Epson Authorized Service Center for a hardware level solution.

*To verify if you need to follow the procedure in this bulletin, check if your system SETUP lists Printer port control. If it is listed, the parallel port allows PS/2 and AT selections, select AT(Unidirectiona1). See page A-3 in your computers User's Guide for SETUP instructions. If your computer has this option skip the instructions above.

# Product Support Bulletin

**SUBJECT:** **Common Questions and Answers for the EPSON ActionPC 2000/ ActionTower 2000 Computer**

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## GENERAL

***Q1. What is the Epson ActionPC 2000/Action Tower 2000 computer?***

**A.** The ActionPC 2000/Action Tower 2000 is a full-featured desktop personal computer that has been designed to capitalize on the high performance and low cost of the Cyrix 486SLC processors. Key features include:

. Cyrix 486SLC/33 or 486SLC2/50 processor
. Local Bus Cirrus Logic GD5424 high speed video controller
. 512KB video memory, upgradeable to 1 MB
. True Color support at 640x480 resolution
. ROM based Phoenix system BIOS "SETUP" program
. Built in rechargeable NiCad battery to maintain CMOS settings

### ACTION PC CONFIGURATION 1

**· Desktop case incorporates**
- Five 16 bit ISA expansion slots
- Three full-length and two half length drive bays
- One 3.5 inch wide, one-inch high internal drive bay
- One 3.5 inch wide, one-inch high and two 5.25 inch wide, half-height drive bays
- Built in bidirectional parallel, PS/2 keyboard, game and two 9-pin serial ports
- Built in floppy and IDE hard drive controller/interface
- 4MB of system RAM on SIMMs, upgradeable to 16MB via SlMMs
- 3.5 1.44 floppy disk drive, 210MB IDE hard disk drive. PS/2 mouse
- 96/48/24 FAX send/receive/data modem

. **Bundled with:**
- MS-DOS 6.21 (Includes - Installation Disks and Documentation)
- Microsoft Windows 3.11 (Includes - Installation Disks and documentation)
- Focal Point (lncludes - Installation Disks and Documentation)
- PFS: Window Works (lncludes - Documentation only)
- Quicken (lncludes - Documentation only)
- Hoyle's Classics (lncludes - Documentation only)
- Russian 6-Pack (lncludes - Documentation only)
- America On-Line (lncludes - Documentation only)
- CompuServe (lncludes - Documentation only)
- The Even More Incredible Machine (lncludes - Documentation only)

**Q1.** ***What is the Epson ActionPC 2OOo/Action Tower 2000 computer?(continued)***

**TOWER CONFIGURATION**

. **Tower case incorporates**

- Five 16 bit full-length ISA expansion slots
- One 3.5 inch front and two 3.5 inch wide rear mount internal half-height drive bays
- Two 3.5 inch wide third height external drive bays
- 4MB/8MB of system RAM, on SIMMs, upgradeable to 16MB via SlMMs
- ROM based Phoenix system BIOS "SETUP" program
- Built in rechargeable NiCad battery to maintain CMOS settings
- 3.5 1.44 floppy disk drive, 210/420MB IDE hard disk drive. PS/2 mouse
- 96/48/24 FAX send/receive/data modem
- 16 bit stereo sound card
- 2x speed CD-ROM drive

. **Bundled with:**

- MS-DOS 6.2(lncludes - installation Disks and Documentation)
- Microsoft Windows 3.11 (Includes - Installation Disks and Documentation)
- Focal Point(lncludes - Installation Disks and Documentation)
- PFS: Window Works(lncludes - Documentation only)
- Quicken(lncludes - Documentation only)
- Hoyle's Classics(lncludes - Documentation only)
- Russian 6-Pack(lncludes - Documentation only)
- America On-Line(lncludes - Documentation only)
- CompuServe(lncludes - Documentation only)
- The Even More Incredible Machine(lncludes - Documentation only)
- Comptons Interactive Encyclopedia(CD-ROM, Complete with Documentation)
- Berenstein Bears: Learning at Home I(CD-ROM, Complete with Documentation)
- KGB/CIA World Fact Book(CD-ROM, Complete with Documentation)
- Paramount Interactive's Movie Select(CD-ROM, Complete with Documentation)

***Q2. What interfaces and controllers are integrated on the motherboard?***

**A.** The Epson ActionPC 2000/Action Tower 2000 computer comes standard with a built-in IDE hard disk drive interface, and floppy disk drive controller, a super VGA video adapter, two serial interfaces, a bidirectional parallel interface, PS/2 style keyboard port and game port all integrated on the main system board.

***Q3. What microprocessor comes standard with the Epson ActionPC 2000/Action Tower 2000 computer?***

**A.** The Epson ActionPC 2000/Action Tower 2000 computer comes standard with Cyrix 486SLC2/50 clock-doubled CPU. This microprocessor provides backward compatibility with Intel 8088, 8086, 80286 and 80386 CPUs and includes a built in 1 K cache.

## CPU

***Q4. What microprocessor upgrades are available for the Epson ActionPC 2000/Action Tower 2000 computer?***

***A.*** The Cyrix 486SLC microprocessor can not be upgraded, it is soldered on the mainboard.

The Cyrix 83S87 33/25MHZ math co-processor can by added to the main board to increase the speed of the floating point operations.

## BIOS

***Q5. What BIOS comes with the Epson ActionPC 2000/Action Tower 2000 computer?***

***A.*** The ActionPC 2000/ Action Tower 2000 computer incorporates an Phoenix Bios that contains both the system and video BIOS. This BIOS is contained in a single EPROM device that is installed in a pluggable socket on the computer's main logic board.

***Q6. How is the computer's SETUP program accessed and what information is contained in setup?***

***A.*** To access the computer's SETUP program, press F2 during the computer's boot process.

| **STANDARD SYSTEM PARAMETERS** | **DEFAULTS** |
|---|---|
| - System Time and Date | Current Time/Date |
| - Floppy Drive Type Selection A: B:(5.25" 360/1.2 and 3.5" 720/1-44) | **3.5",** 1.44MB |
| - HDD Drive Type Selection 1: 2:(Auto Detect, Type No. or User-Defined) | Auto Detect 1 |
| - Base Memory | 640KB |
| - Extended Memory | 4MB or 8MB |
| - Video Type (VGA/EGA, CFA40, CGA80, Mono and not installed) | VGA/EGA |
| - Keyboard (Installed/ Not Installed) | Installed |
| - CPU Speed (Fast/Slow) | Fast |
| - NumLock on at boot (Yes/No) | ON |
| - Internal cache (Enabled/ Disabled) | Enabled |
| **M1217 CHIP SET FEATURE CONTROL** | **DEFAULTS** |
| -Relocate Memory (Enabled/Disabled) | Enabled |
| -Shadow Bios ROM (Always Enabled) | Enabled |
| -Shadow 32K at C800h(Enabled/Disabled) | Enabled |
| -Shadow 64K at D000h(Enabled/Disabled) | Disabled |
| -Shadow 64K at E000h(Enabled/Disabled) | Disabled |
| -ISA 1 wait state(Enabled/Disabled) | Disabled |
| -Slow Refresh(Enabled/Disabled) | Disabled |

Q7. ***What video adapter comes standard(built in) with the Epson ActionPC 2000/Action Tower 2000 computer?***

***A.*** The ActionPC 2000/ Action Tower 2000 computer utilizes a Cirrus Logic GD5424 high-speed super VGA local bus on-board controller. This system includes 512KB of video memory which may be upgraded to full 1 MB of memory by installing four (4) pluggable DRAM(44256., 70ns)chips.

The Cirrus Logic SVGA Graphics controller is 100% hardware and BIOS-compatible with IBM VGA display standards.

Q8. ***What type of VRAM chips are used to upgrade the video memory to a 1MB on the ActionPC 2000/Action Tower 2000 computer?***

***A.*** To increase the computer's video memory requires four pieces of a 256KB x 4 bit, 70ns, DRAM in a 20 pin DIP(Dual In-line Package)Package. These chips install on the computer's main logic board in sockets U13, U14, U15, U16.

***Q9. What Video modes are supported by the Epson ActionPC2000/ActionTower 2000 computer?***

***A.*** The list below is a table that shows the Epson ActionPC 2000/ ActionTower 2000 computer's supported video modes and the memory requirements to obtain each mode.

| Resolution | Memory Requirements | Color | Refresh Rates HZ | Remarks |
|---|---|---|---|---|
| 640X480 | 512KB | 256 | 60/72 | 8BITS/PIXEL |
| 640X480 | 1MB | 32K/64K | 60/72 | 16BITS/PIXEL |
| 640X480 | 1MB | 16.7M(TC) | 60/72 | 24BITS/PIXEL |
| 800X600 | 512KB | 256 | 56/60/72 | 8BITS/PIXEL |
| 800X600 | 1MB | 32K/64K | 56/60/72 | 16BITS/PIXEL |
| 1024X768 | 512KB | 16 | 43.5/60/70/72 | 4BITS/PIXEL |
| 1024X768 | 1MB | 256 | 43.5/60/70/72 | 8BITS/PIXEL |
| 1280X1024 | 1MB | 16 | 43.5 | 4BITS/PIXEL |

***Q10. What software video drivers are provided with the Epson ActionPC 2000/Action Tower 2000 computer?***

***A.*** There are two diskettes included that feature video drivers for many popular software programs and also include video utilities. Microsoft Windows 3.1 drivers are pre-loaded on the hard drive. All other video drivers are available on EPSON's BBS or CompuServe(Windows 3.X, Windows NT, DOS and OS/2 2.x).

The VGA video utilities included are: SETRES and CLMODE. These utilities are useful when customizing system settings such as video modes resolution modes for custom programs.

## MEMORY

Q11. What is the standard memory configuration and maximum amount of system memory that can be used in the Epson ActionPC 2000/Action Tower 2000 computer?

***A.*** The Epson ActionPC 2000/Action Tower 2000 computer comes standard with 4MB or 8MB system memory. This memory is provided by 1MB(1x9) or 4MB(1x9) SIMM(s).

There is a total of four SIMM sockets on the main system board. These sockets accept 1MB(1x9), 4MB(1x9) SIMMS. Optional SlMMs may be purchased to increase the computer's memory up to a maximum of 16MB.

Q12. What are the valid system memory configurations for the Epson Action PC2000/ ActionTower 2000 computer?

***A.*** Listed in the table below shows all valid system memory configurations for the Action PC 2000/ActionTower 2000.

| BANK 0(RAM 1 and RAM 2) | BANK 1 (RAM 3 and RAM 4) | Total Memory |
|---|---|---|
| 1MB | X | 2MB |
| 1MB | 1MB | 4MB |
| 4MB | X | 8MB |
| 4MB | 4MB | 16MB |

**NOTE: The SlMMs used must be tin-plated, 70ns or faster, 30pin, 8-bit or S-bit, fast page mode type.**

## MASS STORAGE

Q13. What factory floppy and hard disk drive configurations are offered with the Action PC 2000/Action Tower 2000 computer?

***A.*** The Epson ActionPC 2000/Action Tower 2000 computer is shipped with the following configurations.

ActionPC 2000
- one 3.5” 1.44MB floppy disk drive
- one 210MB IDE hard disk drive

ACTION TOWER 2000
- one 3.5” 1.44MB floppy disk drive
- one 210MB or 420MB IDE hard disk drive